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46188 7590 07/20/2009 Nixon Peabody LLP			EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)			
	10/731,310	RAKIB ET AL.			
Office Action Summary	Examiner	Art Unit			
	OMAR PARRA	2421			
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply					
A SHORTENED STATUTORY PERIOD FOR REPOWHICHEVER IS LONGER, FROM THE MAILING IF Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory perior Failure to reply within the set or extended period for reply will, by statu Any reply received by the Office later than three months after the mail earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICATIO 1.136(a). In no event, however, may a reply be tind will apply and will expire SIX (6) MONTHS from the cause the application to become ABANDONE	N. mely filed n the mailing date of this communication. ED (35 U.S.C. § 133).			
Status					
Responsive to communication(s) filed on 30. 2a) This action is FINAL . 2b) Th 3) Since this application is in condition for allow closed in accordance with the practice under	is action is non-final. ance except for formal matters, pr				
Disposition of Claims					
4) Claim(s) 36-40 is/are pending in the applicati 4a) Of the above claim(s) is/are withdrest is/are allowed. 5) Claim(s) is/are allowed. 6) Claim(s) 36-40 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/ Application Papers 9) The specification is objected to by the Examin	rawn from consideration. /or election requirement.				
10) The drawing(s) filed on is/are: a) according a deposition of the deposition and according to the deposition of	ccepted or b) objected to by the e drawing(s) be held in abeyance. Se ection is required if the drawing(s) is ob	e 37 CFR 1.85(a). ojected to. See 37 CFR 1.121(d).			
Priority under 35 U.S.C. § 119					
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 					
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail D 5) Notice of Informal I 6) Other:	ate			

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DETAILED ACTION

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Response to Arguments

1. Applicant's arguments filed 03/30/2009 have been fully considered but they are not persuasive.

Applicant seems to be arguing, regarding claim 40, that Kung 'fails to disclose IP packetization of MPEG data for delivery within the costumer premises', Remarks section page 8. To this matter, the examiner respectfully disagrees. The argued limitation is not part of the recited claim 40 as suggested, and therefore, the examiner will keep the rejection of record.

The examiner acknowledges Specification amendment.

Double Patenting

2. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain <u>a</u> patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer <u>cannot</u> overcome a double patenting rejection based upon 35 U.S.C. 101.

3. Claim **36** is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim **8** of prior U.S. Patent No. 6,889,385. This is a double patenting rejection.

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A comparison of the claims of both, patent and current application follows:

Patent No. 6,889,385

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A gateway apparatus comprising: a host computer having a host bus;

one or more local area network interfaces or bus interfaces coupling said host computer to one or more local area networks or buses than carry data between said gateway and one or more devices located at a customer premises;

external network interface circuits coupled to said host bus for interfacing said host computer to one or more networks external to said customer premises including at least a DOCSIS compatible cable modem for bidirectional digital data communication over a hybrid fiber coaxial cable network, and one or more video network interface circuits functioning to receive analog and/or digital video signals delivered over a hybrid fiber coaxial cable network or via satellite or terrestrial and deliver digital video data compressed using MPEG compression; and

wherein said host computer is programmed to implement an IP packetization process to receive said compressed digital video data from said one or more video external network interface circuits and packetize said compressed digital video data into IP packets addressed to the device and/or process which requested said digital video data and which is coupled to said gateway by one or more of said local area networks or busses, and said host computer being further programmed with a routing process to receive said IP packets from said IP packetization process and to receive IP packets from said DOCSIS compatible cable modem and automatically do all routing, encapsulation and protocol conversion necessary to deliver said IP packets to a device and/or process in execution on a device coupled to said gateway apparatus via one of said local area network interfaces or bus interfaces and identified by address information in said IP packets, and to receive data from a device and/or process in execution on a device coupled to said gateway apparatus via one of said local area network interfaces or bus interfaces and do any and all deencapsulation, encapsulation, protocol conversion and routing necessary for each packet to be automatically delivered to an appropriate one or more of said external network interfaces coupled to a device and/or process to which each packet is addressed for upstream delivery via an appropriate

36. A gateway apparatus comprising: a host computer having a host bus;

one or more local area network interfaces or bus interfaces coupling said host computer to one or more local area networks or buses that carry data between said gateway and one or more devices located at a customer premises;

external network interface circuits coupled to said host bus for interfacing said host computer to one or more networks external to said customer premises including at least a DOCSIS compatible cable modem for bidirectional digital data communication over a hybrid fiber coaxial cable network, and one or more video network interface circuits functioning to receive analog and/or digital video signals delivered over a hybrid fiber coaxial cable network or via satellite or terrestrial and deliver digital video data compressed using MPEG compression; and

wherein said host computer is programmed to implement an IP packetization process to receive said compressed digital video data from said one or more video external network interface circuits and packetize said compressed digital video data into IP packets addressed to the device and/or process which requested said digital video data and which is coupled to said gateway by one or more of said local area networks or busses, and said host computer being further programmed with a routing process to receive said IP packets from said IP packetization process and to receive IP packets from said DOCSIS compatible cable modem and automatically do all routing, encapsulation and protocol conversion necessary to deliver said IP packets to a device and/or process in execution on a device coupled to said gateway apparatus via one of said local area network interfaces or bus interfaces and identified by address information in said IP packets, and to receive data from a device and/or process in execution on a device coupled to said gateway apparatus via one of said local area network interfaces or bus interfaces and do any and all deencapsulation, encapsulation, protocol conversion and routing necessary for each packet to be automatically delivered to an appropriate one or more of said external network interfaces coupled to a device and/or process to which each packet is addressed for upstream delivery via an appropriate

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medium of transmission to whatever device and/or process to which said data is addressed, and said host computer programmed with a management and control process for receiving requests for data from a device and/or process coupled to one or more of said local area network interfaces or said bus interfaces, and sending digital control data to one or more of said external network interface circuits to control them to obtain said requested data from a source coupled to said gateway via one or more of said external network interfaces.

medium of transmission to whatever device and/or process to which said data is addressed, and said host computer programmed with a management and control process for receiving requests for data from a device and/or process coupled to one or more of said local area network interfaces or said bus interfaces, and sending digital control data to one or more of said external network interface circuits to control them to obtain said requested data from a source coupled to said gateway via one or more of said external network interfaces.

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims **37-39** are rejected on the ground of nonstatutory double patenting over claims **8, 24 and 20, respectively** of U. S. Patent No. 6,889,385 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

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The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows:

Regarding claim 37, the limitations of the application's claim correspond to the limitations of patented claim underlined right next to each other:

Patent No. 6,889,385

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8. A gateway apparatus comprising: a host computer having a host bus;

one or more local area network interfaces or bus interfaces coupling said host computer to one or more local area networks or buses than carry data between said gateway and one or more devices located at a customer premises;

said host computer programmed with a management and control process for receiving requests for data from a device and/or process coupled to one or more of said local area network interfaces or said bus interfaces, and sending digital control data to one or more of said external network interface circuits to control them to obtain said requested data from a source coupled to said gateway via one or more of said external network interfaces

external network interface circuits coupled to said host bus for interfacing said host computer to one or more networks external to said customer premises including at least a DOCSIS compatible cable modem for

bidirectional digital data communication

37. A gateway apparatus comprising:

<u>a host computer having a host bus</u>

<u>one or more local area networks and/or one or more buses that carry **upstream and downstream** data between said gateway and one or more devices located at a customer premises;</u>

and <u>controlled by at least a management and</u> control process;

one or more network interface means for coupling said host computer to

external network receiver interface means
coupled to said host bus for interfacing said host
computer to one or more networks external to said
customer premises, said external network interface
means comprising a DOCSIS cable modem means

for receiving downstream broadband data in the form of IP packets encapsulated in MPEG packets and outputting IP packets, and for receiving upstream data from one or more devices coupled to one or more of said network interfaces and transmitting said data on a DOCSIS upstream on an external network comprised

of a hybrid fiber coaxial cable system, and said external network interface means further comprising one or more video network interface means

over a hybrid fiber coaxial cable network, and one or more video network interface circuits functioning to receive analog and/or digital video signals

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delivered over a hybrid fiber coaxial cable network or via satellite or terrestrial and deliver digital video data compressed using MPEG compression; and

wherein said host computer is programmed to implement an IP packetization process to receive said compressed digital video data from said one or more video external network interface circuits and packetize said compressed digital video data into IP packets

addressed to the device and/or process which requested said digital video data and which is coupled to said gateway by one or more of said local area networks or busses, and

said host computer being further programmed with a routing process to receive said IP packets from said IP packetization process and to receive IP packets from said DOCSIS compatible cable modem and automatically do all routing.

encapsulation and protocol conversion necessary to deliver said IP packets to a device and/or process in execution on a device coupled to said gateway apparatus via one of said local area network interfaces or bus interfaces and identified by address information in said IP packets, and to receive data from a device and/or process in execution on a device coupled to said gateway apparatus via one of said local area network interfaces or bus interfaces and do any and all deencapsulation, encapsulation, protocol conversion and routing necessary for each packet to be automatically delivered to an appropriate one or more of said external network interfaces coupled to a device and/or process to which each packet is addressed for upstream delivery via an appropriate medium of transmission to whatever device and/or process to which said data is addressed, and

said host computer programmed with a management and control process for receiving requests for data from a device and/or process coupled to one or more of said local area network interfaces or said bus interfaces, and sending digital control data to one or more of said external network interface circuits to control them to obtain said requested data from a source coupled to said

functioning for receiving analog and/or digital video signals delivered over a hybrid fiber coaxial cable network or via satellite or via terrestrial and for delivering from said received video signals digital video data compressed using MPEG compression;

an IP packetization means which may be part of said host computer and which is coupled to said host bus, for packetizing compressed digital data received from said one or more video network interface means into internet protocol packets (hereafter IP packets);

a routing means which may be part of said host computer and coupled to said host bus and having one or more outputs coupled to said one or more network interface means and coupled to receive said IP packets from said IP packetization means and coupled to receive IP packets from said DOCSIS cable modem for routing said IP packets and

delivering each said IP packets to the appropriate network interface means for delivery to the device which ordered data in said IP packet, and for receiving upstream data from devices and/or processes coupled to said one or more local area networks or busses and routing said data to the appropriate external network interface means for upstream transmission.

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gateway via one or more of said external network interfaces	

Although all the limitations of claim 37 are similarly recited on claim 8 of the patent above, the claim does not recite receiving IP packets encapsulated on MPEG packets.

However, Mao et al. (Pub. No. 2002/0108119) teaches that sending IP packets encapsulated on MPEG packets (IP over MPEG) is a common practice on DOCSIS systems ([0002]; [0006]; [0024]).

Therefore, it would have been obvious to have modified the patent claim with Mao's teaching of sending IP data over MPEG for the benefit of simultaneously sending video and IP data using only one tuner ([0007]).

Regarding claims 38:

Patent No. 6,889,385

24. A gateway apparatus comprising: a host bus;

a plurality of expansion connectors electrically coupled to said host bus; one or more expansion modules coupled to said host bus through one or more of said expansion connectors, each expansion module including the appropriate circuitry to [bidirectionally] interface with an external network medium comprised of either a hybrid fiber coaxial cable of a CATV system, a digital subscriber line local loop, an analog plain old telephone service line or a satellite dish or an antenna;

one or more network interface adapters for coupling said gateway to one or more local area networks or busses which convey digital data to one or more items of customer premises equipment;

[a host computer having a central processing

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38.A gateway apparatus comprising: a host bus;

a plurality of expansion connectors electrically coupled to said host bus; one or more expansion modules coupled to said host bus through one or more of said expansion connectors, each expansion module including the appropriate circuitry to bidirectionally interface with an external network medium comprised of either a hybrid fiber coaxial cable of a CATV system, a digital subscriber line local loop, an analog plain old telephone service line or a satellite dish [or an antenna];

one or more network interface adapters for coupling said gateway to one or more local area networks or busses which convey digital data to one or more items of customer premises equipment;

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unit or microprocessor coupled to said host bus and programmed to perform at least a management and control process to receive requests]

transmitted from said one or more items of customer premises equipment to said gateway via one or more of said local area networks or buses for data or video or audio programs and to react thereto by appropriately controlling said one or more expansion modules to retrieve the requested data or video or audio program, and programmed to perform an IP packetization process to receive downstream digital data from one or more of said expansion modules which is not already in IP packet form and data from said management and control process and encapsulate said data into internet protocol packets addressed to the customer premises equipment and one or more processes running on customer premises equipment which requested said data, and said host computer further programmed to perform a routing process to do all packetization, protocol conversion and routing functions necessary to route packets between any of said expansion modules and any of said one or more local area networks and/or busses.

transmitted from said one or more items of customer premises equipment to said gateway via one or more of said local area networks or buses for data or video or audio programs and to react thereto by appropriately controlling said one or more expansion modules to retrieve the requested data or video or audio program, and programmed to perform an IP packetization process to receive downstream digital data from one or more of said expansion modules which is not already in IP packet form and data from said management and control process and encapsulate said data into internet protocol packets addressed to the customer premises equipment and one or more processes running on customer premises equipment which requested said data, and said host computer further programmed to perform a routing process to do all packetization, protocol conversion and routing functions necessary to route packets between any of said expansion modules and any of said one or more local area networks and/or busses.

Claim 24 is a narrower version of the instant claim 38 of the present invention. Having patented claim 24 more elements than claim 38 makes patented claim 24 to cover all the limitations of claim 38.

Regarding claim 39: the limitations of the application's claim correspond to the limitations of patented claim underlined right next to each other:

- 20. A gateway apparatus comprising: a host computer having a host bus;
- one or more local area network interfaces or bus interfaces coupling said host computer to one or more local area networks or buses than carry data between said gateway and one or more devices located at a customer premises;
- 39. A process carried out in a gateway, comprising:
 (1) receiving a DOCSIS downstream
 comprised of MPEG packets encapsulating IP
 packets with the data of said MPEG packets
 modulated onto a downstream carrier and
 recovering and outputting said IP packets using a
 DOCSIS cable modem;

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said host computer programmed with a management and control process for receiving requests for data from a device and/or process coupled to one or more of said local area network interfaces or said bus interfaces, and sending digital control data to one or more of said external network interface circuits to control them to obtain said requested data from a source coupled to said gateway via one or more of said external network interfaces

external network interface circuits coupled to said host bus for interfacing said host computer to one or more networks external to said customer premises including at least a DOCSIS compatible cable modem for bidirectional digital data communication over a hybrid fiber coaxial cable network, and one or more video network interface circuits functioning to receive analog and/or digital video signals delivered over a hybrid fiber coaxial cable network or via satellite or terrestrial and deliver digital video data compressed using MPEG compression; and

wherein said host computer is programmed to implement an IP packetization process to receive said compressed digital video data from said one or more video external network interface circuits and packetize said compressed digital video data into IP packets addressed to the device and/or process which requested said digital video data and which is coupled to said gateway by one or more of said local area networks or busses, and

said host computer being further programmed with a routing process to receive said IP packets from said IP packetization process and to receive IP packets from said DOCSIS compatible cable modem and automatically do all routing.

encapsulation and protocol conversion necessary to deliver said IP packets to a device and/or process in execution on a device coupled to said gateway apparatus via one of said local area network interfaces or bus interfaces and identified by address information in said IP packets, and to receive data from a device and/or process in execution on a device coupled to said gateway apparatus via one of said local area network

(3) packetizing said MPEG packets encoding audio and video components of a desired video program into IP packets;

(4) routing said IP packets from said packetizing step and IP packets received from said DOCSIS cable modem to an appropriate network interface; and

(5) performing the appropriate protocol conversions to transmit said IP packets to the devices to which they are addressed over a local area network or bus.

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interfaces or bus interfaces and do any and all deencapsulation, encapsulation, protocol conversion and routing necessary for each packet to be automatically delivered to an appropriate one or more of said external network interfaces coupled to a device and/or process to which each packet is addressed for upstream delivery via an appropriate medium of transmission to whatever device and/or process to which said data is addressed, and

said host computer programmed with a management and control process for receiving requests for data from a device and/or process coupled to one or more of said local area network interfaces or said bus interfaces, and sending digital control data to one or more of said external network interface circuits to control them to obtain said requested data from a source coupled to said gateway via one or more of said external network interfaces

wherein said one or more external network interface circuits comprises a receiver for interfacing said gateway to a satellite dish and receiving compressed digital data of an MPEG transport stream encoding a requested video-on-demand television program modulated onto a downlink carrier and requested by a device coupled to one or more of said local area networks or buses, and demodulating and recovering digital data of said MPEG transport stream and transport demultiplexing said MPEG transport stream to extract MPEG packets encoding audio and video data components of said requested video-ondemand television program therefrom and transmitting said recovered audio and video data components to said IP packetization process.

(2) using a digital video tuner to receive downstream digital video transmissions in the form of an MPEG transport stream modulated onto a radio frequency carrier and demodulating and transport demultiplexing said MPEG transport stream to extract MPEG packets encoding audio and video components of a desired video program;

Although all the limitations of claim 39 are similarly recited on patented claim 20 of the patent above, the claim does not recite receiving IP packets encapsulated on MPEG packets.

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However, Mao et al. (Pub. No. 2002/0108119) teaches that sending IP packets encapsulated on MPEG packets (IP over MPEG) is a common practice on DOCSIS systems ([0002]; [0006]; [0024]).

Therefore, it would have been obvious to have modified the patent claim with Mao's teaching of sending IP data over MPEG for the benefit of simultaneously sending video and IP data using only one tuner ([0007]).

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claim **40** is rejected under 35 U.S.C. 102(e) as being anticipated by Kung et al. (hereinafter 'Kung', Pub. No. 2004/0228336).

Regarding claim 40, Kung teaches an apparatus (300, Fig. 3) comprising:

a DOCSIS compatible cable modem for recovering digital data encoded in a DOCSIS downstream signal transmitted on a cable television system hybrid fiber coax medium (hereafter HFC) and for providing said recovered data at an output for use by a computer or other digital device coupled to said cable modem, and for transmitting upstream data from said computer or other digital device on a DOCSIS upstream transmitted on said HFC (transceiver 302, Fig. 3; [0080]; [0085];

a tuner for tuning in a radio frequency carrier signal carrying a video signal: first means coupled to said tuner for recovering digital data encoding a video program in said video signal, said digital data being compressed for transmission over a data path ([0109]);

an adapter circuit comprising (settop module 350, Fig. 3 or processor 312, Fig. 3):

an decoder for decompressing said compressed digital data to generate uncompressed data encoding audio and video signals of said video program; an audio processor for converting said uncompressed digital data encoding said audio signal into an analog audio signal ([0086]; [0106]; [0109]-[0110]);

video signal generation means for converting said uncompressed digital data encoding a video signal into an NTSC, PAL, SECAM or composite format video signal;

means for conveying said audio and video signals to an input or inputs of a television set in a proper format for viewing and listening to said video program; first control means for controlling said cable modem, said tuner and said first means;

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second control means for controlling said adapter; and a data path coupling said first means to said adapter ([0086]; [0106]; [0109]-[0110]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OMAR PARRA whose telephone number is (571)270-1449. The examiner can normally be reached on 9-6 PM (M-F, every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John W. Miller/
Supervisory Patent Examiner, Art Unit 2421